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Minority Stress, Activism, and Health in the Context of Economic Precarity:

Results from a National Participatory Action Survey of LGBTQ & GNC Youth

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Abstract

Lesbian, gay, bisexual, transgender, queer, and gender non-conforming (LGBTQ & GNC) youth experience more economic hardship and social stress than their heterosexual and cisgender peers. However, the ways that LGBTQ & GNC youth resist these damaging social factors and the corresponding implications for their health have not been addressed. Data were analyzed from a national participatory survey of LGBTQ & GNC youth ages 14 to 24 (N = 5,860) living in the United States. Structural equation models indicated that economic precarity was associated with experiences of health problems. This association was mediated by the negative influence of minority stress on health as well as by activism, which had a positive association with health. Findings suggest that minority stress explanations of health inequalities among LGBTQ & GNC youth can benefit from including a focus on economic precarity; both in terms of its deleterious impact on health and its potential to provoke resistance to structural oppression in the form of activism.

Keywords: Economic Hardship; Well-being; Health; Resistance; Sexuality; Gender; Participatory Action Research

Minority Stress, Activism, and Health in the Context of Economic Precarity:

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The study of *precarity* seeks to understand how young people, across class, race and ethnicity, gender, sexuality, and immigration status, experience and respond to conditions of poverty and racism (Fine, Greene, & Sanchez, 2016). While a significant amount of research has focused on youth of color navigating structural inequities, there has been no systematic national analysis to determine how lesbian, gay, bisexual, transgender, queer, and gender non-conforming (LGBTQ & GNC) young people, across racial and ethnic categories, experience economic precarity; how precarity impacts their exposure to discrimination and affects their physical and mental health and well-being (cf. Keuroghlian, Shtasel, & Bassuk, 2014). Further, it remains unknown how collective activism may represent a response to such injustice and result in benefits for LGBTQ & GNC youths' physical and psychological well-being. The current study, [BLINDED], a national participatory survey of LGBTQ & GNC youth was designed with and for LGBTQ & GNC youth to examine these questions.

The Developmental Context of Well-Being Inequalities for LGBTQ & GNC Youth

Due to prevailing heteronormativity and cisgenderism, adolescence and emerging adulthood are developmental periods during which LGBTQ & GNC youth face the challenge of developing positive sexual and gender identities in cultural, social, and familial contexts that are largely stigmatizing (Morgan, 2012; Toomey, Ryan, Diaz, Card, & Russell, 2010; Wright & Perry, 2006). They experience rates of abuse and victimization in school and within their families that are consistently higher than their heterosexual and cisgender peers (Friedman, Marshal, Guadamuz, Wei, Wong, Saewyc, & Stall, 2011; Khan, 2016). Specifically, research has shown LGBTQ & GNC youth are exposed to developmental risk factors unique to their stigmatized sexual and gender minority statuses, such as homophobic

and transphobic bullying (Ryan & Rivers, 2004) and lack of family acceptance (Ryan, Huebner, Diaz, & Sanchez, 2009).

Indeed, inequalities continue to be observed across multiple indicators of health and well-being in adolescence and emerging adulthood, such that LGBTQ & GNC youth have higher rates of suicidal ideation and suicide attempts, feeling of hopelessness, bullying (both online and in-person), and sexual and physical violence compared to their heterosexual and cisgender peers (Khan, 2016). Developmental science has increasingly framed both adolescence and emerging adulthood as critical periods to focus research and intervention efforts aimed at understanding and improving the health and well-being of LGBTQ & GNC populations (Russell & Fish, 2016). This is especially true because many health problems, especially mental health problems, evidence onset during adolescence or soon after; periods during which LGBTQ & GNC youth are discovering and making public new identities while also being exposed to excess amounts of common and unique health risk factors related to their LGBTQ & GNC identities (see Russell & Fish, 2016 for a review). For example, experiences of homophobia and transphobic victimization in schools during adolescence have been shown to be associated with health problems manifesting in emerging adulthood (Ryan et al., 2009; Toomey et al., 2010).

Given the extent of health inequalities faced by LGBTQ & GNC youth, research aimed at explaining the social conditions that potentially underlie and explain these inequalities is needed. Thus, within-group studies of the structural and social factors associated with both negative *and* positive health and well-being outcomes among the population of LGBTQ & GNC youth are warranted (Schwartz & Meyer, 2010). Furthermore, because differential exposure to unique risk factors potentially underlying health inequalities exists in both adolescence and emerging adulthood (Russell & Fish, 2016; Ryan et al., 2009; Toomey et al., 2010), the present study focused on the population of LGBTQ & GNC youth

inclusive of both developmental periods (i.e., youth ages 18 to 24).

Precarity and Well-Being in the Lives of LGBTQ & GNC Youth

We offer up the notion of "precarity" to describe the context of inequality faced by LGBTQ & GNC youth, which we hypothesize plays a foundational role in exposure to risk factors for well-being inequalities. We draw from Lorey who writes, "Precarization means living with the unforeseeable, with contingency… The conceptual composition of 'precarious' can be described in the broadest sense as insecurity and vulnerability, destabilization and endangerment" (Lorey, 2015: p. 10).

The lived experience of precarity stems from an overarching macro context of structural discrimination (Link & Phelan, 2001), in which laws and policies, cultural ideologies, and societal attitudes create a disadvantaged and stigmatized social status for LGBTQ & GNC youth relative to their heterosexual and cisgender peers (Hatzenbuehler, 2014; Hughto, Reisner, & Pachankis, 2015; Meyer, Schwartz, & Frost, 2008). Structural inequalities, stigmatizing ideologies, and discriminatory policies and practices place LGBTQ & GNC youth, particularly those of color, in a position of *economic precarity* with respect to financial instability, food insecurity, access to reliable housing, affirming health care, trusting relations with schools and police, and relations with family (Fine, Greene, & Sanchez, 2016). Generally, sexual and gender minority individuals are more likely to experience poverty than their heterosexual and cisgender peers (Badgett, Durso, & Schneebaum, 2013). Specifically, LGBTQ & GNC youth comprise a third to nearly half of the amount of homeless youth in some cities despite making up less than 10% of the general population (Keuroghlian et al., 2014; Choi, Wilson, Shelton, & Gates, 2015). Youth of color are further over-represented amongst the large contingent of LGBTQ & GNC youth homeless service users (Choi et al., 2015) due to intersecting oppressions in the form of homophobia, transphobia, poverty, and racism (e.g., Diaz, Bein, & Ayala, 2006). These precarities disproportionately experienced by

LGBTQ & GNC youth in general, and especially by LGBTQ & GNC youth of color, contribute to a disadvantaged socioeconomic status that has separately been theorized as the "fundamental cause" of social inequalities and has a wide-reaching negative impact on health and well-being (e.g., Lynch, Kaplan, & Shema, 1997; Phelan, Link, & Tehranifar, 2010).

The existing body of research on health inequalities among LGBTQ & GNC youth has not yet explored how youth experience economic precarity and its potential role in shaping their well-being. Research on how youth in general make sense of and experience economic inequalities (e.g., Flanagan, Campbell, Botcheva, Vowes, Csapo, Macek, & Sheblanova, 2003) points to the complexities of how young people understand experiences of economic precarity in ways that reflect experiences of both social marginalization and resistance (Devlin, 2006; Jones, 2003). As Fine and Burns have written (2003), it is crucial to understand how economic inequalities "move under the skin," affect social relationships, and mobilize desires for social change. Scholars of youth civic engagement (e.g., Watts & Flanagan, 2007) have further called for an emphasis on psychological factors, both negative and positive, that contribute to action for social justice among youth facing and resisting structural precarity.

From Economic Precarity to Intersectional Experiences of Minority Stress

LGBTQ & GNC youth's experiences of economic precarity may further increase their likelihood of experiencing various forms of unfair treatment, microaggressions, and discrimination (Nadal, 2013; Shelton, 2015; Snyder, Hartinger-Saunders, Brezina, Beck, Wright, Forge, et al., 2016). Some research has linked the experience of economic precarity, especially homelessness, to increased exposure to discrimination from multiple sources, including family, interactions with the criminal justice system, educators, and service providers that either actively discriminate against or are not equipped to deal with the specific needs of LGBTQ & GNC youth (Shelton, 2015; Snyder et al., 2016).

Following the minority stress framework (Meyer, 1995; 2003), these experiences represent "minority stressors" in that they are experienced as social stressors resulting from the disadvantaged and stigmatized social status collectively afforded to LGBTQ & GNC youth. Exposure to minority stressors places LGBTQ & GNC individuals, and especially those of color, at greater risk for health and well-being problems relative to heterosexual and cisgender individuals, and White peers, who experience fewer stressors (Hendricks & Testa, 2012; Meyer et al., 2007; Williams & Mann, 2017). Despite recent improvements in attitudes towards LGBTQ & GNC people in general (Fetner, 2016), LGBTQ & GNC youth continue to experience high levels of minority stress in the form of verbal and physical harassment, bullying, and victimization (e.g., Kosciw, Greytak, & Bartkiewicz, 2014), which have been linked with negative health outcomes: depression, emotional distress, and suicidal ideation (Almeida et al., 2009; Baams, Grossman, & Russell, 2015; Toomey et al., 2010).

In this study we investigated the intersectional experiences of minority stress that derive from the combination of experiences of racism, homophobia, and transphobia. As articulated in the minority stress framework and other social stress theories (see Schwartz and Meyer, 2010 for a review), stress stemming from disadvantaged and stigmatized social status that is socially afforded to racial and ethnic minority LGBTQ & GNC youth may represent unique forms of social stress, and therefore unique risk for well-being, relative to White LGBTQ & GNC youth who are not disadvantaged based on race and ethnicity. Additionally, the intersection of both sexual minority and gender minority statuses may position transgender, non-binary, and gender non-conforming youth at greater risk of precarity and minority stress relative to cisgender youth who are socially disadvantaged because of their sexual minority identities but not because of their gender identities (Gordon & Meyer, 2008; Hendricks & Testa, 2012; Hughto et al., 2015).

Activism as Positive Marginality: Resistance to Economic Precarity and Minority Stress

While much minority stress research has focused on individual- and group-level coping strategies and support seeking, there has been little empirical attention paid to activism as a potential health-enhancing *response* to minority stress and economic precarity in the form of *positive marginality* (Unger, 2000). Activism may indeed be a potent response to oppression (e.g., Campbell & Deacon, 2006; Nikora, Rua, & Awekotuku, 2006; Swank & Fahs, 2006). With a focus on agency and collective action (Frost, 2011; Jewkes, 2006), social science scholarship echoes critical race theorist bell hooks' (1984) discussion of the "margin" as both a space of dispossession but also a site of radical possibility in the form of resistance. Hall and Fine (2005) have written on the activist commitments that derive from "radical marginality," drawing from oral histories with older Black lesbians, but few have interrogated these associations among LGBTQ and GNC youth. Research has provided evidence for these theoretical claims in the form of associations between perceived discrimination and activism among racial and ethnic minority university students (Cronin, Levin, Branscombe, van Laar, & Tropp, 2012) and LGBTQ & GNC individuals (Swank & Fahs, 2006). Experimental research indicates that recalling experiences of discrimination against LGBTQ & GNC people increased both identification with a "gay rights" movement as well as willingness to participate in future collective action (Simon, Loewy, Sturmer, Weber, Freytag, Habig et al., 1998).

Activist efforts within the LGBTQ & GNC community have historically been led by a high representation of people of color (Moradi, DeBlaere, & Huang, 2010), have targeted the economic needs and dignity/safety demands of LGBTQ & GNC people of color (e.g., Audre Lorde Project, National Black Justice Coalition), and have increasingly participated in solidarity efforts with other social movements (e.g., Black Lives Matter, immigration struggles, discriminatory policing). LGBTQ & GNC youth have been active in forming and running Genders and Sexuality Alliances (GSAs) in schools and challenging school and

university policies based on violations of anti-discrimination statutes (Meyer & Stadler, 2009).

The association between activism and well-being for LBTQ and GNC youth, particularly youth of color, has been under-theorized and under-researched. The little evidence that exists within LGBTQ & GNC populations has been contradictory. For example, experiences of discrimination (i.e., enacted stigma) were associated with higher levels of involvement in activism, which were in turn associated with greater meaning in life and social well-being but also more depression (Earnshaw, Rosenthal, & Lang, 2016; Vaccaro & Mena, 2011). Although the small amount of research on the association between activism and well-being in LGBTQ & GNC populations has been inconsistent, research in the general population has demonstrated robust and consistent associations between activism in many forms (e.g., behavioral acts, volunteerism) and well-being across a number of indicators (Klar & Kasser, 2009; Thoits & Hewitt, 2001).

The Current Study

For the purposes of this analysis, an overarching research question guided our approach: How do LGBTQ & GNC youth experience economic precarity and what are its consequences for their health and well-being? Specific hypotheses are represented in Figure 1. It was hypothesized that economic precarity would have direct and negative effect on the well-being of LGBTQ & GNC youth (Path A). Further, we hypothesized that economic precarity (i.e., housing, financial, and food insecurities) would be associated with increased vulnerability and exposure to minority stress (i.e., everyday discrimination, gender and sexual orientation-based harassment, and bullying; Path B), which would in turn have negative effects on well-being in the form of health problems (i.e., self-rated health, depressive symptoms, and suicidal ideation; Path C). However, operating from positive marginality frameworks, it was also hypothesized that LGBTQ & GNC youth may mobilize in response

to economic precarity and minority stress by engaging in collective action in the form of activism and solidarity movements (i.e., behavioral involvement in activism, involvement in multiple activist causes, participation in a community-based organization; Paths D and E), which would be associated with positive well-being (Path F).

[Insert Figure 1 about here]

Following aspects of an intersectionality perspective, we did not assume LGBTQ & GNC youth would have a uniform and homogeneous experience of these constructs, and instead examined the hypothesized model at various interlocking oppressions (Rosenthal 2016) based on current hierarchies of race and ethnicity and gender. In line with models of multiple disadvantaged social statuses and health (e.g., Grollman, 2012; 2014), social stress theory and the minority stress framework (e.g., Meyer et al., 2008), we hypothesized that LGBTQ & GNC youth of color would experience higher rates of economic precarity, minority stress, and negative health problems compared to White LGBTQ & GNC youth due to their multiple and intersecting stigmatized social statuses stemming from racism. Following the same justification, we hypothesized that transgender, non-binary, and gender non-conforming youth would experience higher rates of economic precarity, minority stress, and negative health problems compared to cisgender youth due to their multiple and intersecting stigmatized social statuses stemming from cisgenderism and transphobia. Additionally, following positive marginality (Hall & Fine, 2005; Unger, 2000), we anticipated that racial/ethnic minority youth and transgender, non-binary, and gender non-conforming youth would engage in higher rates activism if activism was indicative of a response to excess experiences of economic precarity and minority stress. We further hypothesized that associations between activism and well-being would be stronger for racial/ethnic minority youth, transgender, non-binary, and gender non-conforming youth compared to White and cisgender youth, respectively, as a result of multiple forms of

oppression and positive marginality at the intersections of sexual, gender, and racial/ethnic statuses.

Method

Design

Data were analyzed from [BLINDED], a national critical participatory action research (CPAR) project created with, by, for, and about LGBTQ & GNC youth ages 14-24. Given the lack of previous research on the role of economic precarity in the lives of LGBTQ & GNC youth and the relation of precarity to discrimination, activism and well-being, a participatory approach to research stands to contribute knowledge by privileging the expertise and experiences of LGBTQ & GNC youth themselves. Rooted in principles of epistemological democracy, CPAR is an inclusive, collaborative approach to research defined by deep participation by those most intimately affected by injustice and a commitment to interrogating questions of power and privilege, throughout the research process (Torre et al., 2017). Marked by an inclusive orientation that honors the "right to research", CPAR expands traditional notions of expertise, repositioning those who have been traditionally "researched" and excluded from the academy as research partners (Torre, 2013). Valuing situated knowledge alongside conventional scholarly literatures CPAR assumes that the subjects and agents of knowledge are multiple, heterogeneous, contradictory, embodied and socially constructed, and therefore in the case of the current study, calls attention to the multiple intersections of identities and oppressions experienced within the larger population of LGBTQ & GNC youth [BLINDED].

The [BLINDED] national survey was created in collaboration with approximately 400 LGBTQ & GNC youth across the U.S. recruited from youth organizations around the country (GSAs, immigration justice, YMCAs, spoken word organizations, homeless youth groups, foster care advocacy, racial justice organizations and listservs, and word of mouth). When the

project was first launched, we formed a national advisory group of adults and youth from across the country involved in scholarship, activism, youth development and the arts, who identified as LGBTQ or GNC, and of color. We identified 40 youth organizations to which we sent $100 gift cards to host survey making, and later survey taking and survey analysis parties of LGBTQ/GNC, around the nation.

Over several months, youth gathered in small groups to nominate, pilot, and ultimately determine the survey themes, categories and questions. Through an iterative process that took place in person, on the phone, and in online meeting spaces, youth and adult allies (e.g., university researchers, community organizers, youth advocates) discussed appropriate and effective questions. In these research meetings, standardized measures were reviewed and adapted, and some new items were created for the purposes of studying domains less developed in the literature. Co-creating the survey with a purposely diverse collective of co-researchers, assured the inclusion of questions that addressed the core of what LGBTQ & GNC youth were interested in understanding about their communities as well as relaying to peers, organizers, advocates, policymakers, and social science. More details on the CPAR procedures used in this study have been published in [BLINDED] and profiles of the CPAR team and advisory board available online at [WEBSITE]. Institutional Review Board approval was obtained for all aspects of the research from [BLINDED] (protocol #2016-0614, [BLINDED]).

Sample and Recruitment

There is no true sampling frame for LGBTQ & GNC youth, particularly those most structurally marginalized, of color and transgender, non-binary, and gender non-conforming and thus they represent a “hidden population” (Meyer & Wilson, 2009). We committed to over-sampling LGBTQ & GNC youth of color and transgender, non-binary, and gender non-conforming youth, and youth under 18, given their under-representation in other national

surveys. Thus, we adopted various Internet and community-based sampling strategies to reach the target population (Meyer & Wilson, 2009). A team of LGBTQ & GNC youth outreach workers who were social media experts posted recruitment advertisements on Facebook, Tumblr, Twitter, and other social media platforms, directing interested youth to the project website, which contained an explanation of the project, video narratives from the CPAR collective, and a link to take part in the survey. Outreach was made to several community organizations serving LGBTQ & GNC youth in cities and towns across the U.S., which were provided incentives to host "survey parties" whereby youth were able to complete the survey in person. Those who wished were given the opportunity to provide their email addresses to be entered into a series of prize drawings ranging from $25 to $1,000 and including iPad minis. A total of $40,000 in incentives were distributed.

The final sample (see Table 1) consisted of 5,860 youth who identified broadly as LGBTQ & GNC and progressed through at least approximately 75% of the survey. Given the purposive sampling goals guided by the CPAR and intersectional approaches to the present research, the sample achieved a high representation of youth of color as well transgender, non-binary, and gender non-conforming youth. Participants were from all U.S. states, Puerto Rico and Guam, and reflected a balanced representation of the four primary geographic regions of the U.S. (US Census Bureau, 2010). Missing data ranged between 0% and 11% across study variables. Given the inclusion of participants who did not complete the entire survey as mentioned previously, missing data did not adhere to assumptions of a Missing Completely at Random (MCAR) pattern and thus missing values were imputed using expectation maximization (Schafer & Olsen, 1998).

[Insert Table 1 about here]

Measures

Demographics. Race and ethnicity, gender, and sexual orientation were each assessed

by first allowing participants to describe how they identified in an open-ended prompt, followed by "check all that apply" response options (see Table 1). Participants were also asked to report their sex assigned at birth (male, female, or intersex). For purposes of analysis, participants were considered cisgender if their sex assigned at birth matched their current gender identity, otherwise participants were considered to be transgender, non-binary, gender non-conforming (Grant et al., 2011).

Economic precarity. Experiences of economic precarity were assessed with 3 indicators: Money problems; not having enough to eat; and housing insecurity. *Money problems* and *not having enough to eat* were assessed by asking participants the extent to which they experienced each during the past 12 months on a scale of 0 = "never" to 3 = "most or all of the time." For *housing insecurity,* participants reported their housing/living situation(s) over the past 12 months and responded to the question of "How often have you faced not having a safe place to spend the night in the past 12 months?" on a scale of 0 = "never" to 4 = "always." Participants were considered to have experienced housing insecurity if (a) they reported being homeless, living anywhere other than in a home they personally rent/own or the home of a parent/guardian; and/or (b) reported any experience of not having a safe place to spend the night during the past 12 months. The final indicator for housing insecurity was coded as 1 = experience of housing insecurity and 0 = no experience of housing insecurity. The latent variable of economic precarity was scaled according to the money problems indicator.

Minority stress. Minority stress was assessed with 4 indicators: Discrimination; being called a homophobic name; being made fun of for gender expression/identity; and bullying. Williams and colleagues' (1997) everyday discrimination scale was used to assess *discrimination* due to any/multiple minority group statuses (e.g., race, ethnicity, gender, gender expression, sexual orientation, religion, etc.). The scale consisted of 9 items for which

participants indicated how often they experienced forms of discrimination in their day-to-day lives on a scale of 0 = "never" to 5 = "almost every day." Items included: "You are treated with less courtesy than other people are" and "People act as if they are afraid of you." Responses to items demonstrated a high degree of internal consistency in the current study (α = .88). Following recommendations from Meyer and colleagues, we did not include follow up attribution items with reference to specific identities (e.g., race, gender, sexual orientation) so that discrimination could be assessed in an intersectional way that would be applicable for all participants and suitable for between-group comparisons (Meyer et al., 2008). Participants were also asked how often they were *called a homophobic name* and *made fun of because of my gender expression/identity* during the past 12 months. Both experiences were assessed on a scale of 0 = "never" to 3 = "most or all of the time." Finally, experiences of *bullying* were assessed using the two-item approach used in the Youth Risk Behavior Surveillance System (YRBSS; Brener et al., 2004). Respondents were asked: "Have you ever been bullied?" and "Have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media)" in the last 12 months and considered to have experienced bullying if they answered affirmatively to either. The final indicator for bullying was coded as 1 = any experience of bullying and 0 = no experience of bullying. The latent variable of minority stress was scaled according to the discrimination indicator.

Activism. Activism was assessed with 3 indicators: engagement in activist behaviors; the areas of activism involvement; and participation in community-based organizations. *Activism behaviors* were assessed using a measure adapted from one used in the Black Youth Project (Cohen, 2005) asking youth to indicate whether they did any of 14 possible activism-related activities (e.g., "signed a paper or email petition," "been active in or joined a political or justice-focused group," "worked with the people in your neighborhood on a problem or issue important to you") in the past 12 months. Values ranged from 0 to 14. *Areas of activism*

involvement was assessed by asking participants "Are you presently involved or participating in activist or organizing work" surrounding any of 11 different areas (e.g., "LGBTQ & GNC issues," "Racial Justice," Economic Justice"). Values ranged from 0 to 11. Finally, participants were asked whether or not (yes = 1, no = 0) they currently *participated in community-based organization* (CBOs). The latent variable of activism was scaled according to the activist behaviors indicator.

Health problems. Health problems were assessed with 3 indicators: Psychological distress; suicidal ideation; and self-rated health. Kessler and colleagues' (2010) K6 scale was used to assess non-specific *psychological distress*. The K6 assesses experiences of six symptoms of distress over the past 30 days on a scale of 0 = "none of the time" to 4 = "all of the time." Example items included feeling "nervous," "hopeless," and "restless or fidgety." Responses to items on this scale demonstrated a high degree of internal consistency in the current study ($\alpha = .90$). Participants indicated how often they experienced *suicidal ideation* using the YRBSS measure: "During the past 12 months, did you ever seriously consider attempting suicide?" 0 = "never" to 3 = "most or all of the time." *Self-rated physical health* was measured using the single-item General Health Rating from the SF-12 (Ware Jr., Kosinski, & Keller, 1996): "In general, would you say your health is..." Participants responded on a 5-point scale ranging from 0 = "excellent" to 4 = "poor", with greater numbers indicating worse self-rated health. The latent variable of health problems was scaled according to the psychological distress indicator.

Participatory Approach to Data Analysis

Our goal within this CPAR design was to develop a praxis for participatory analytics with a research team of 40 LGBTQ & GNC youth researchers from New York, New Jersey, Detroit, Los Angeles, New Orleans, Jackson, Boston, Seattle, Saint Louis and Tucson. The team included 37 youth of color and 3 who identified as White. [BLINDED]. Over the course

of 18 months, at three national gatherings held at [UNIVERSITY BLINDED], we committed to participatory analytics wherein we agreed that before releasing or publishing any findings, the data would be reviewed and analyzed by the full research collective: 40 youth activist/researchers from around the country who were primarily although not exclusively youth of color, along with four primary university researchers who ranged in experience from doctoral student to distinguished professor [Authors, BLINDED]. Together we engaged in "real time critical statistics" (Stoudt, 2014) and collaboratively we engaged in methodological conversations about how to create variables and categories to define comparison subsample (e.g., of race/ethnicity, gender, sexuality, disability, region). In these dialogues, we debated if and how to report about mental health and suicide; if and how to collapse gender identities into transgender, non-binary, and gender non-conforming and cisgender; if and how to reduce a sprawling list of racial and ethnic identities into groups for comparing youth of color and White youth. These conversations were long, deliberate and sometimes contentious. The outcomes of these conversations yielded a variety of decisions for the use and presentation of data that depended on the context and audience. The research collective agreed that useful comparisons could be made within published reports at the highest level of abstraction by creating samples comprised of youth of color (i.e., anyone who identified their race and ethnicity as something other than white in comparison to exclusively white-identified youth) and youth who identified their gender outside of binary gender constructions (i.e., transgender, non-binary, and gender non-conforming youth in comparison to cisgender youth).

Results

Bivariate Analyses

Due to the large sample size, a conservative indicator of statistical significance was used ($p \leq .001$) and interpreted in light of the direction and magnitude of coefficients and

corresponding confidence intervals. Correlations and descriptive statistics for all study variables are presented in Table 2. Race and ethnicity (people of color compared to White respondents) and gender (trans/non-binary/gender fluid compared to cis respondents) were associated with heightened levels of economic precarity and more experiences of discrimination, but also greater levels of activism. Considering race and ethnicity, LGBTQ & GNC youth of color reported higher levels of the three indicators of economic precarity, all three indicators of activism, as well as everyday discrimination than White youth. Considering gender, transgender, non-binary and gender non-conforming youth reported higher levels of all indicators of economic precarity, health problems, discrimination, and activism (with the lone exception of CBO participation) compared to cisgender youth. All other study variables demonstrated statistically significant small- to medium-sized associations (correlation coefficients) with the exception of the associations between CBO participation and bullying and between activism behaviors and psychological distress and suicidal ideation.

[Insert Table 2 about here]

Multivariate Models

We utilized Structural Equation Modeling (SEM) procedures to model reliable variance in the latent constructs of economic precarity, minority stress, activism, and health problems (indicator variables for latent constructs were previously specified in the Measures section). We followed the two-step process recommended by Anderson and Gerbing (1988) which required testing the measurement component of the model followed by testing the fit of the proposed structural model (Figure 2). In tests of the measurement component of the model, all indicators demonstrated significant and substantial (following Stevens 2012 criteria of > .40) standardized loadings with corresponding latent constructs (.47 to .93). Due to the large sample size, model chi-square was determined not to be an appropriate indicator

of model fit (Bentler & Bonett, 1980). Following recommendations from Hu and Bentler (1999), we report chi-square statistics but use root-mean-square error of approximation (RMSEA; values below .06) and the comparative fit index (CFI; values above .95) as measures of good model fit. Observed variables were not measured uniformly (e.g., Likert, count, and dichotomous variables) and data did not adhere to assumptions of multivariate normality (multivariate kurtosis = -1.96, critical ratio = -3.80). For these reasons, we followed recommendations by Byrne (2001) to use bootstrapping procedures within the context of maximum likelihood estimation to test the hypothesized models.

[Insert Figure 2 about here]

Test of the hypothesized model. The hypothesized structural model (Figure 2) demonstrated adequate model fit based on the previously described criteria [CFI = .96; RMSEA = .05, p = .17; χ^2 (59) = 981.41, $p < .001$]. All standardized structural path coefficients were statistically significant at the conservative level of $p < .001$. As noted above, experiences of economic precarity were associated with more health problems for the full sample. Economic precarity was further associated with higher levels of minority stress, which was in turn associated with a higher level of reported health problems. In addition, economic precarity was associated with increased involvement in activism, which in turn was associated with fewer health problems. An examination of the indirect effects and their bootstrapped 95% confidence intervals (using 10,000 samples) indicated that the association between economic precarity and health problems was partially mediated by minority stress and activism (standardized indirect effect = .22, 95% CI = .19 to .25). Finally, there was some evidence that experiences of minority stress were associated with higher levels of activism. Further, activism partially mediated the association between minority stress and health problems (standardized indirect effect = -.02, 95% CI = -.03 to -.01).

Finally, in order to rule out alternative configurations of the hypothesized paths, we

compared the hypothesized model to alternative models by altering the structural associations between the latent variables in the model and refitting the model to the data. Fit statistics for these models are presented in Table 3. First, we compared the hypothesized model to a direct effects only model (i.e., Figure 1, paths A, C, and F). Second, we compared the hypothesized model to a fully mediated model (i.e., Figure 1, paths B, E, and F). Third, we tested a model omitting the role of minority stress completely (i.e., Figure 1, paths A, D, and F). Finally, we tested a model omitting the role of activism completely (i.e., Figure 1, paths A, B, and C). These alternative models did not fit the data adequately. Given the cross-sectional nature of the data, models with reversed paths (e.g., minority stress to economic precarity) resulted in equivalent model fit statistics and were therefore not reported.

[Insert Table 3 about here]

Multi-group analyses. Exploring the degree to which the associations between the core constructs in the hypothesized model operated similarly or differently across race and ethnicity and gender, we tested the fit of the model separately using a multi-group modelling approach (Byrne, 2004). Before testing differences in the structural paths in the model, we tested for measurement invariances between the groups by comparing the fit of the unconstrained measurement model to a model where the measurement loadings and intercepts were constrained to be equal across groups. Constraining measurement loadings and intercepts to be equal across the groups did not meaningfully worsen the fit of the measurement model for groups based on race and ethnicity [CFI = .96; RMSEA = .04; $\Delta\chi^2$ $(9) = 30.04$, $p < .001$] or gender [CFI = .95; RMSEA = .04; $\Delta\chi^2$ $(9) = 73.94$, $p < .001$]. Thus, we proceeded with aspects of the measurement model constrained to be equal across the groups. Next, structural paths in the model were constrained to be equal across the groups to examine whether the imposition of equality constraints on the structural paths significantly worsened the fit of the models. If the imposition of structural equality constraints produced a

poorer fitting model, structural components of the model were considered to vary between groups. Additional structural equality constraints produced models lacking adequate CFIs for both race and ethnicity [CFI = .94; RMSEA = .04; $\Delta\chi^2$ (28) $= 343.22$, $p < .001$] and gender [CFI = .87; RMSEA = .05; $\Delta\chi^2$ (28) $= 1513.04$, $p < .001$].

Table 4 presents the results of the structural models fit separately by race and ethnicity and gender. Comparisons between White LGBTQ & GNC youth and youth of color indicated that the mediating roles of minority stress and activism (i.e., indirect pathways leading from economic precarity to health via minority stress and activism) seemed to operate more strongly for youth of color than for White youth, given the direct effect of economic precarity was not significant for youth of color. Furthermore, minority stress was significantly associated with activism for youth of color but not for White youth. Regarding gender, discrimination and activism demonstrated stronger associations with health for transgender, non-binary, and gender non-conforming youth than for cisgender youth. Furthermore, discrimination was associated with activism for transgender, non-binary, and gender non-conforming youth but not for cisgender youth.

[Insert Table 4 about here]

Tests of indirect effects. Finally, we calculated the bootstrapped 95% confidence intervals around the indirect effects in the structural component of the model (see Table 5) as a formal tests of mediation (Shrout & Bolger, 2002) in the examination the degree to which the associations between economic precarity and health were fully or partially explained by discrimination and activism. Significant indirect effects were observed for the association between economic precarity and well-being (via discrimination and activism), as well as for the association between economic precarity and activism (via minority stress) and the association between minority stress and well-being (via activism). These indirect effects were statistically significant in the full sample and in models tested separately for participants of

color compared to white participants as well as for transgender, gender queer, and gender non-conforming participants compared to cisgender participants.

[Insert Table 5 about here]

Discussion

[BLINDED] is the first national study to document the complex interplay between structural inequality in the form of economic precarity, minority stress, activism, and health in the lives of LGBTQ & GNC youth, with an intentional intersectional analysis by race and gender. The findings clearly demonstrate a persistent and substantial negative association between experiences of economic precarity and health and well-being for LGBTQ & GNC youth, confirming and extending prior research that links experiences of economic instability and disadvantage with negative health outcomes for youth and in the general population (e.g., Kushel et al., 2006; Lynch et al., 1997). The findings further lend support to the minority stress model (Meyer, 2003), in that they indicate how economic precarity may further put youth at risk for exposure to discrimination, bullying, and other forms of sexuality and gender based harassment, which are known to negatively impact LGBTQ & GNC health (Hendricks & Testa, 2012; Hughto et al. 2015; Meyer, 2003). Findings also lend support to theory and research that indicates that multiple disadvantaged social statues (in this instance, based on gender identity and race and ethnicity) are associated with the magnification health inequalities within a national sample of LGBTQ & GNC youth (Grollman, 2012; 2014).

And yet, while the hypothesized associations between structural precarity, minority stress, and health have been confirmed, activism was an additional potential explanation of the association between precarity and negative health outcomes for LGBTQ & GNC youth. Specifically, our findings that the associations between experiences of economic precarity and well-being is partially explained by both minority stress and activism as negative and positive mediating processes in the interpersonal domain. This finding is in line with theory

and research on positive marginality and collective action in response to discrimination and perceived threats to social identity (Cronin et al., 2012; Simon et al., 1998; Unger, 2000). Further, this association provides the first evidence for a positive connection between activism and collective action as forms of resistance to oppression that can be beneficial for well-being (Earnshaw et al., 2016; Klar & Kasser, 2009; Thoits & Hewitt, 2001) particularly for LGBTQ & GNC youth and even more particularly for LGBTQ and GNC youth of color.

There were important differences that emerged when the hypothesized associations were examined separately in across analytic subsamples based on gender and race and ethnicity. Specifically, although significant regardless of gender, discrimination and activism demonstrated stronger associations with well-being for transgender, non-binary, and gender non-conforming youth than for cisgender youth. Regarding race and ethnicity differences, minority stress was significantly associated with activism for youth of color but not for White youth. Most striking were the findings that the mediating roles of minority stress and activism (i.e., indirect pathways leading from economic precarity to health via minority stress and activism) seemed to operate more strongly for youth of color than for White youth given the direct association between economic precarity and well-being was not significant when tested only among youth of color. These differences may indicate that activism functions more strongly as a response to precarity and minority stress for those groups most effected by intersecting forms of structural oppression (i.e., heterosexism combined with cisgenderism and racism) relative to youth occupying more privileged social positions (i.e., White and cisgender youth). These findings reflect the importance of an intersectional approach (Grollman, 2012; 2014; Rosenthal, 2016) in research on the roles of and responses to precarity and minority stress among LGBTQ & GNC youth and the resulting implications for their well-being (Institute of Medicine, 2011).

Taken together, the findings from the present study potentially illustrate the cascading

effects of economic precarity in LGBTQ & GNC youth's lives, indicating simultaneous processes of harm and resistance. Specifically, in tests of alternative models, the omission of minority stress and activism as partial explanations of associations between economic precarity and well-being substantially worsened the fit of the model, demonstrating that a limited focus on only negative or positive factors provides a partial and insufficient picture of the role that economic precarity plays in LGBTQ & GNC youths' lives. Indeed, the multi-group analysis showed that activism was more strongly associated with discrimination for LGBTQ & GNC youth of color and transgender, non-binary, and gender non-conforming youth, suggesting activism maybe a positive resistance response to discrimination among those youth who are most marginalized (hooks, 1996; Unger, 2000).

In this regard, this study is responsive to calls for research on social determinants of health inequalities to improve explanatory models by including a range of explanations of negative health outcomes experienced by LGBTQ & GNC youth which simultaneously highlight the experiences of minority stress and LGBTQ & GNC youths' efforts to resist multiple forms of oppression (Frost, 2017). Such an approach more fully reflects the complexities of LGBTQ & GNC youths' lived experiences and can improve efforts to explain the persistence of health inequalities faced by LGBTQ & GNC youth (Khan et al., 2016; Russell & Fish, 2016).

Using a CPAR approach, that centered the lived expertise of LGBTQ & GNC youth, we committed to investigating domains determined important by the literature *and* by the lived experiences of youth. Youth colleagues insisted that we include questions about economic precarity, stressors, bullying and suicidality *as well as* questions about political engagement, activism, and solidarities. Had we not included these additional domains we would have missed the robust and rich complexity of LGBTQ & GNC youth lives, and we would not have been able to empirically document the previously overlooked association

between activism and positive health outcomes for LGBTQ & GNC youth.

The present findings—emerging from CPAR paradigm—offer preliminary insight into the potential health benefits of activism, collective action, and resistance. For example, this study suggests that participation in collective action and activist efforts might have a salutogenic role for youth similar to what is already known about well-being benefits associated with involvement in community in the form of volunteering (Jenkinson et al., 2013; Kumar, Calvo, Avendano, Sivaramakrishnan, & Berkman, 2012). Furthermore, the current evidence suggests that activism may represent a response to economic precarity and minority stress that illustrates for LGBTQ & GNC youth elements of Ginwright's (2010) concept of "radical healing" among African American youth. Namely, as shifting climates in the US create both new opportunity for and resistance to LGBTQ & GNC youth's rights, activism goes beyond a simple "problem focus" approach to coping with economic precarity and minority stress because it represents a response to precarity that is "possibility focused," reflecting "the capacity for people to act and respond to sociocultural forces in ways that contribute collective well-being" (Ginwright, 2010, p. 85).

There have been a variety of action goals pursued within ongoing aspects of the CPAR design, which can be broadly categorized into four domains. First, the CPAR collective has been working directly to feed findings back to the LGBTQ & GNC community. For example, the CPAR collective reviewed the findings and insisted that we create a series of videos that could move through activist organizations to challenge gender binaries and animate the key issues LGBTQ & GNC activists care about (available online at WEBSITE). Second, action has been taken to feed findings into policy change efforts and inform the work of local government. One of our key members was a consultant with the Biden Foundation and generated a set of regional profiles for philanthropy and organizing/policy work and other members have been collaborating with the Office of the

Mayor and Department of Health in [BLINDED CITY] around LGBTQ & GNC inclusivity in policies related to housing, youth and families. Third, findings from this research have been used in efforts to forge and enhance relationships with adult allies. For example, we are working with the Proud and Out Teacher Initiative on a variety of projects and sharing findings with leaders of major teacher unions to support educators' ability to be "out" in schools and classrooms. Finally, findings have been feed into other youth activist projects to ensure effective representation of gender and sexuality. For example, we have been collaborating with a number of school districts on School Culture CBPR projects to produce public dialogues about belongingness, affirmation, and culturally responsive education (including race, gender, sexuality, and disability) in schools and in communities.

Limitations

The findings from the present study should be interpreted in light of its limitations. Primarily, although the SEM analyses imply causation, the data are cross-sectional. We tested alternative models in order to rule out alternative ordering, however no causal affects can be inferred from the analyses. Future research is needed to determine the likely bidirectional pathways between core constructs, such as economic precarity and minority stress. Although we tested a theoretical pathway in which economic precarity is thought to increase the likelihood of exposure to discrimination, it is equally plausible that discrimination (e.g., from family of origin) could lead to economic precarity (e.g., being kicked out of the house because of one's LGBTQ & GNC identity). Our claims that activism is a response to economic precarity and minority stress are based on theoretically informed and ordered associations and require additional longitudinal work to test the causal implications of this claim. Furthermore, our measurement was limited to self-report and future research is needed using additional objective measures of study constructs that we did not have access to in the present study. Additionally, the CPAR approach was successful in yielding a sample of

LGBTQ & GNC youth that intentionally overrepresented youth of color and transgender, non-binary, and gender non-conforming youth and was intentionally *not* representative of the population of LGBTQ & GNC youth. Therefore, no population estimates can be drawn from the study. However, the robust size and diversity of the sample allowed for us to test complex associations between aspects of economic precarity, minority stress, activism, and health that would not have been possible to test with probability samples given their lack of sufficient diversity. The CPAR approach did however result in some limitations around measurement of the latent constructs in the study. Some indicators were measured by validated scales while others were questions created by the CPAR collective. This limitation reflects the goals of CPAR in privileging youths' lived experience as expertise, but produced a more disparate than desirable range of loadings in the measurement models of some factors. The use of SEM techniques was therefore useful in modelling the reliable variance across the indicators of each construct.

Conclusions

The present findings provide the first illustration of the complex associations between economic precarity and well-being in the lives of LGBTQ & GNC youth; highlighting negative and positive explanations for this link in the form of minority stress and activism (Frost, 2017). This study is the first to provide suggestive evidence that engagement in activism may be a health-enhancing response to economic precarity and minority stress. Thus, future research on inequalities in health should more directly consider the potential benefits of promoting activism among LGBTQ & GNC youth in efforts toward reducing the often observed negative outcomes of economic precarity and minority stress. Like previous studies that demonstrate the importance of collaborating with youth researchers within studies about their lives (Torre et al., 2017) these findings encourage the inclusion of youth as research partners and collaborators in understanding the complexities of their lived

experiences as well as what interventions and social transformations may be needed. These findings suggest the need for a more balanced and multi-level approach to addressing economic precarity amongst LGBTQ & GNC youth, one that integrates the provision of services to meet immediate needs with intersectional activist campaigns to transform the policies and structures of interlocking oppression around sexuality, racial/ethnic, and gender based struggles (Cook et al., 2014; Rosenthal, 2016; Watts & Flanagan, 2007).

References

Almeida, J., Johnson, R. M., Corliss, H. L., Molnar, B. E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth and Adolescence,* 38(7), 1001-1014.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice. *Psychological Bulletin,* 103(3), 411-423.

Baams, L., Grossman, A. H., & Russell, S. T. (2015). Minority stress and mechanisms of risk for depression and suicidal ideation among lesbian, gay, and bisexual youth. *Developmental Psychology,* 51(5), 688-696.

Badgett, M. V., Durso, L. E., Schneebaum, A. (2013). *New patterns of poverty in the lesbian, gay, and bisexual community*. The Williams Institute. Available online at: https://escholarship.org/uc/item/8dq9d947

Bentler, Peter M., and Douglas G. Bonett. 1980. "Significance tests and goodness of fit in the analysis of covariance structures." *Psychological Bulletin* 88(3):588-606.

Brener, N. D., Kann, L., Kinchen, S. A., Grunbaum, J. A., Whalen, L., Eaton, D., Hawkins, J., & Ross, J. G. (2004). Methodology of the youth risk behavior surveillance system. *Recommendations and Reports: Morbidity and Mortality Weekly Report,* 53(RR-12), 1-13.

Barbara M. Byrne (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. Mahwah, NJ: Lawrence Erlbaum Associates

Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. *Structural Equation Modeling,* 11(2), 272-300.

Campbell, C., & Deacon, H. (2006). Unraveling the contexts of stigma: From internalisation to resistance to change. *Journal of Community and Applied Social Psychology,* 16(6), 411-417.

Choi, S. K., Wilson, B. D. M., Shelton, J., Gates, G. (2015). *Serving our youth 2015: The needs and experiences of lesbian, gay, bisexual, transgender, and questioning youth experiencing homelessness*. The Williams Institute. Available online at: http://escholarship.org/uc/item/1pd9886n

Cohen, C. J. (2005). *Black Youth Culture Survey*. Chicago, IL: Black Youth Project. Accessed online at http://www.blackyouthproject.com

Cook, J. E., Purdie-Vaughns, V., Meyer, I. H., & Busch, J. T. A. (2014). Intervening within and across levels: A multilevel approach to stigma and public health. *Social Science & Medicine, 103*, 101-109.

Cronin, T. J., Levin, A., Branscombe, N. R., van Laar, C., & Tropp, L. R. (2012). Ethnic identification in response to perceived discrimination protects well-being and promotes activism: A longitudinal study of Latino college students. *Group Processes and Intergroup Relations, 15*(3), 393-407.

Devlin, M. (2006). *Inequality and the stereotyping of young people*. London: The Equality Authority.

Díaz, R. M., Bein, E., & Ayala, G. (2006). Homophobia, poverty, and racism: Triple oppression and mental health outcomes in Latino gay men. In A. M. Omoto and H. S. Kurtzman (Eds.) *Sexual orientation and mental health: Examining identity and development in lesbian, gay, and bisexual people* (p. 207-224). Washington, DC, US: American Psychological Association.

Earnshaw, V. A., Rosenthal, L., & Lang, S. M. (2016). Stigma, activism, and well-being among people living with HIV. *AIDS Care, 28*(6), 717-721.

Fetner, T. (2016). US attitudes toward lesbian and gay people are better than ever. *Contexts, 15*(2), 20-27.

Fine, M., & Burns, A. (2003). Class notes. *Journal of Social Issues, 59*, 841-860.

Fine, M., Greene, C. C., & Sanchez, S. (2016). Neoliberal blues and prec(ar)ious knowledge. *The Urban Review, 48*(4), 499-519.

Flanagan, C. A., Campbell, B., Botcheva, L., Bowes, J., Csapo, B, Macek, P., & Sheblanova, E. (2003). Social class and adolescent beliefs in justice in different social orders. *Journal of Social Issues, 59*, 711-732.

Friedman, M. S., Marshal, M. P., Guadamuz, T. E., Wei, C., Wong, C. F., Saewyc, E. M., & Stall, R. (2011). A meta-analysis of disparities in childhood sexual abuse, parental physical abuse, and peer victimization among sexual minority and sexual nonminority individuals. *American Journal of Public Health, 101*(8), 1481-1494.

Frost, D. M. (2011). Social stigma and its consequences for the socially stigmatized. *Social and Personality Psychology Compass, 5*(11), 824–839.

Frost, D. M. (2017). The benefits and challenges of health disparities and social stress frameworks for research on sexual and gender minority health. *Journal of Social Issues, 73*, 462–476.

Ginwright, S. A. (2010). Peace out to revolution! Activism among African American youth: An argument for radical healing. *Young, 18*(1), 77-96.

Gordon, A. R., & Meyer, I. H. (2008). Gender nonconformity as a target of prejudice, discrimination, and violence against LGB individuals. *Journal of LGBT Health Research, 3*(3), 55-71.

Grant, J. M., Mottet, L., Tanis, J. E., Harrison, J., Herman, J., & Keisling, M. (2011). *Injustice at every turn: A report of the National Transgender Discrimination Survey*. National Center for Transgender Equality.

Gollan, E. A. (2012). Multiple Forms of Perceived Discrimination and Health among Adolescents and Young Adults. *Journal of Health and Social Behavior, 53*(2), 199–214.

Gollan, E. A. (2014). Multiple Disadvantaged Statuses and Health: The Role of Multiple Forms of Discrimination. *Journal of Health and Social Behavior, 55*(1), 3–19.

Hatzenbuehler, M. L. (2014). Structural stigma and the health of lesbian, gay, and bisexual populations. *Current Directions in Psychological Science, 23*, 127-132.

Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress Model. *Professional Psychology-Research and Practice, 43*(5), 460.

hooks, b. (1984). *From margin to center*. Cambridge, MA: South End Press.

Hall, R. L., & Fine, M. (2005). The stories we tell: The lives and friendship of two older Black lesbians. *Psychology of Women Quarterly, 29*(2), 177-187.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Hughto, J. M. W., Reisner, S. L., & Pachankis, J. E. (2015). Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science & Medicine, 147*, 222-231.

Institute of Medicine. (2011). *The health of lesbian, gay, bisexual, and transgender people: Building a foundation for better understanding*. Washington, DC: The National Academies Press.

Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., ... & Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health, 13*(1), 773.

Jewkes, R. (2006). Beyond stigma: Social responses to HIV in South Africa. *The Lancet, 368*, 430-431.

Jones, S. J. (2003). Complex subjectivities. *Journal of Social Issues, 59*, 803-820.

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., Furukawa, T., Gureje, O., Hinkov, H., Hu, C. Y., & Lara, C. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research, 19*(S1), 4-22.

Keuroghlian, A. S., Shtasel, D., & Bassuk, E. L. (2014). Out on the street: A public health and policy agenda for lesbian, gay, bisexual, and transgender youth who are homeless. *American Journal of Orthopsychiatry, 84*(1), 66-72.

Klar, M., & Kasser, T. (2009). Some benefits of being an activist: measuring activism and its role in psychological well-being. *Political Psychology, 30*(5), 755-777.

Kosciw, J. G., Greytak, E. A., & Bartkiewicz, M. J. (2014). Failing progress: Changes in school climate for LGBT youth over time. In E. Meyer and D. Carlson (eds.) *Gender and sexuality in education: A reader* (p. 188–201). New York, NY: Peter Lang.

Kumar, S., Calvo, R., Avendano, M., Sivaramakrishnan, K., & Berkman, L. F. (2012). Social support, volunteering and health around the world: Cross-national evidence from 139 countries. *Social Science & Medicine, 74*(5), 696-706.

Kushel, M. B., Gupta, R., Gee, L., & Haas, J. S. (2006). Housing instability and food insecurity as barriers to health care among low-income Americans. *Journal of General Internal Medicine, 21*, 71-77.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual review of Sociology, 27*, 363-385.

Lorey, I. (2015). *State of insecurity: Government of the precarious*. Verso Books.

Lynch, J. W., Kaplan, G. A., & Shema, S. J. (1997). Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning. *New England Journal of Medicine, 337*(26), 1889-1895.

Morgan, E. M. (2013). Contemporary issues in sexual orientation and identity development in emerging adulthood. *Emerging Adulthood, 1*(1), 52-66.

Meyer, E. J., & Stader, D. (2009). Queer youth and the culture wars: From classroom to courtroom in Australia, Canada and the United States. *Journal of LGBT Youth, 6*(2-3), 135-154.

Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38-56.

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*(5), 674-697.

Meyer, I. H., & Wilson, P. A. (2009). Sampling lesbian, gay, and bisexual populations. *Journal of Counseling Psychology, 56*(1), 23-31.

Meyer, I. H., Schwartz, S., & Frost, D. M. (2008). Social patterning of stress and coping: Does disadvantaged social status confer more stress and fewer coping resources?. *Social Science & Medicine, 67*, 368-379.

Moradi, B., DeBlaere, C., Huang, Y. P. (2010). Centralizing the experiences of LGB people of color in counseling psychology. *Counseling Psychologist, 38*(3), 322-330.

Nadal, K. L. (2013). *That's so gay! Microaggressions and the lesbian, gay, bisexual, and transgender community.* Washington, D.C.; American Psychological Association.

Phelan, J. C., Link, B. G., & Tehranifar, P. (2010). Social conditions as fundamental causes of health inequalities theory, evidence, and policy implications. *Journal of Health and Social Behavior, 51*(1 suppl), S28-S40.

Rosenthal, L. (2016). Incorporating intersectionality into psychology: An opportunity to promote social justice and equity. *American Psychologist, 71*(6), 474-485.

Russell, S. T., & Fish, J. N. (2016). Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annual Review of Clinical Psychology, 12*, 465-487.

Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in White and Latino lesbian, gay, and bisexual young adults. *Pediatrics, 123*(1), 346-352.

Ryan, C., & Rivers, I. (2003). Lesbian, gay, bisexual and transgender youth: Victimization and its correlates in the USA and UK. *Culture, Health and Sexuality,* 5(2), 103-119.

Schafer, J. L., & Olsen, M. K. (1998). Multiple imputation for multivariate missing-data problems: A data analyst's perspective. *Multivariate Behavioral Research, 33*, 545 – 571.

Schwartz, S., & Meyer, I. H. (2010). Mental health disparities research: The impact of within and between group analyses on tests of social stress hypotheses. *Social Science & Medicine, 70*(8), 1111-1118.

Shelton, J. (2015). Transgender youth homelessness: Understanding programmatic barriers through the lens of cisgenderism. *Children and Youth Services Review, 59*, 10-18.

Simon, B., Loewy, M., Stürmer, S., Weber, U., Freytag, P., Habig, C., Kampmeier, C., & Spahlinger, P. (1998). Collective identification and social movement participation. *Journal of Personality and Social Psychology, 74*, 646.

Snyder, S. M., Hartinger-Saunders, R., Brezina, T., Beck, E., Wright, E. R., Forge, N., & Bride, B. E. (2016). Homeless youth, strain, and justice system involvement: An application of general strain theory. *Children and Youth Services Review, 62*, 90-96.

Stevens, J. P. (2012). *Applied multivariate statistics for the social sciences*. Routledge.

Stoudt, B. (2014). Critical statistics. In T. Teo (Ed.), Encyclopedia of Critical Psychology (pp. 1850-1858). New York, NY: Springer Press.

Swank, E., & Fahs, B. (2006). An intersectional analysis of gender and race for sexual minorities who engage in gay and lesbian rights activism. *Sex Roles, 68*, 660-674.

Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior, 42*(2), 115-131.

Toomey, R. B., Ryan, C., Diaz, R. M., Card, N. M., & Russell, S. T. (2010). Gender-nonconforming lesbian, gay, bisexual, and transgender youth: school victimization and young adult psychosocial adjustment. *Developmental Psychology, 46*, 1580-1589.

Torre, M. E. (2013). Participatory Action Research. In T. Teo (Ed.) *The Encyclopedia of Critical Psychology*. Springer Press.

Torre, M. E., Fine, M., Stoudt, B., & Manoff, E. (2017). Critical participatory action research on State violence: Bearing wit(h)ness across fault lines of power, privilege and dispossession. In N. Denzin and Y.S. Lincoln (eds.) *Handbook of Qualitative Research* (p. 492-515). Sage Publications.

Unger, R. K. (2000). The 1999 SPSSI Presidential Address: Outsiders inside: Positive marginality and social change. *Journal of Social Issues, 56*, 163-179.

United States Census Bureau (2010). *Census Bureau Regions and Divisions with State FIPS Codes*. Accessed online at: https://www2.census.gov/geo/docs/maps-data/maps/reg_div.txt

Ware Jr, J. E., Kosinski, M. & Keller, S. D. (1996). A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care, 34*, 220-233.

Watts, R. J., & Flanagan, C. (2007). Pushing the envelope on youth civic engagement: A developmental and liberation psychology perspective. *Journal of Community Psychology, 35*(6), 779-792.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*(3), 335-351.

Williams, S. L., & Mann, A. K. (2017). Sexual and gender minority health disparities as a social issue: How stigma and intergroup relations can explain and reduce health disparities. *Journal of Social Issues, 73*, 450-461.

Wright, E. R., & Perry, B. L. (2006). Sexual identity distress, social support, and the health of gay, lesbian, and bisexual youth. *Journal of Homosexuality, 51*(1), 81-110.